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ABSTRACT

A study examined primary school teachers' matching of instructional reading methods to models of reading difficulties and how often they used each activity in their classrooms. Subjects were 39 primary school teachers from the northeast section of a Great Lakes, midwestern state. For the study, teachers characterized each reading method according to correlates that comprised medical, information processing, and sociocultural models of reading difficulties. Using a list of 32 methods of reading instruction, teachers indicated their use of each method often, sometimes, rarely, or never. Results indicated that teachers characterized the majority of instructional reading methods according to an information processing perspective, followed by a sociocultural orientation. Findings reveal that teachers ranked questioning, modeling, and background knowledge enrichment as their three most frequently used methods of reading instruction, and propaganda styles, reading groups, choral reading, cloze procedure, and semantic mapping as their least frequently used activities. (Contains 18 references; a reading methods survey and 3 pages of study results are appended.) (CR)

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Models of Reading Difficulties and Methods of Reading Instruction Among Primary School Teachers

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Abstract

The research involved primary school teachers' matching of instructional reading methods to models of reading difficulties, and how often they used each activity in their classrooms. Teachers characterized each reading method according to correlates that comprised medical, information processing, and sociocultural models of reading difficulties. The data showed that teachers characterized the majority of instructional reading methods according to an information processing perspective, followed by a sociocultural orientation. Teachers ranked questioning, modeling, and background knowledge enrichment as their three most frequently used methods of reading instruction, and propaganda styles, reading groups, choral reading, cloze procedure, and semantic mapping as their least frequently used activities.

Models of Reading Difficulties and Methods of Reading Instruction Among Primary School Teachers

Elementary school reading instruction is an intriguing prospect for most teachers. Two important variables in reading instruction include reading activities or methods used by teachers, and how teachers match their methods of instruction to perceived models of reading difficulties. In this research, a survey of teachers' instructional preferences are examined and matched to models of reading difficulties.

The rationale behind investigating instructional reading practices by teachers is to highlight their current teaching practices, and methods of instruction; however, it is not enough to determine methods of current reading practices in the classroom: How are methods of reading instruction matched to methods of reading difficulties? It is through matching methods of reading instruction to models of reading difficulties one can begin to hypothesize teachers' reading orientations or perspectives (Bigenho, 1994). Further, by looking at teachers' use of reading methods according to perceived models of reading difficulties may shed light on approaches to reading instruction.

Models of Reading Difficulties

Although there are a number of models associated with reading

difficulties, the medical, information processing, and sociocultural perspectives dominate the literature on reading difficulties and are highlighted in this study (Rubin, 1997; Bigenho, 1994; Bond, Tinker & Wasson, 1994; Wixson & Lipson, 1991).

Medical model

According to Bond, Tinker and Wasson (1994), Wixson and Lipson (1991), Harris and Sipay (1990), and Mosse (1982), children experiencing reading difficulties in the medical model have neurological, physical, and physiological factors that impede their reading ability. Causes of reading dysfunctions include aphasia, brain lesions, biochemical imbalances, maturation, myopia, hypermetropia, astigmatism, damage or malfunctions that affect the brain, organs, or physical structures of the body.

There are a number of observable, medical symptoms, they include: visual problems, tracking and saccadic eye movement irregularities, speech difficulties, auditory, hearing problems, physical handicaps that limit access to reading materials, limited motor control, and imbalances, feature analysis related to right brain laterality, fluency related to left brain laterality, word recognition, related to both spheres, allergies, energy level, and accidents such as head injuries. These symptoms are manifested in childrens' difficulties coding print, attending to reading and

interacting with printed media.

Information processing model

According to Rubin (1997), Harris and Sipay (1990), Wixson and Lipson (1991), Anderson (1990), and Perfetti (1984), the information processing perspective of reading difficulties includes difficulties in cognitive processes and strategies underlying reading ability. There is a malfunction in the encoding, storage, activation, and retrieval of information during the reading process. The causes of information processing reading difficulties include malfunctions of processes related to limited exposure to sensory, short term (STM), and long term (LTM) memories. Additional causes include a limited exposure to print, lack of focus or attention to closure, sequence, figure-ground discrimination, spacing, print, contrast, difficulty remembering text, and organizing materials. The student experiencing reading difficulties in this model may not be aware of self-monitoring strategies that enhance comprehension. There is a breakdown in the way in which information is processed and the formation of mental representations (Rubin, 1997).

In the classroom, symptoms of reading problems in the information processing model include problems following directions, or procedures, limited ability to engage in strategic learning, memory problems, sensory

difficulties, letter reversals, i.e., b - d reversals, directionality, and closure problems. Additional symptoms involve word substitutions, automatizing the decoding of words, word meaning, reliance on one type of reading approach, such as phonics, rather than a multdimensional approach toward reading. These factors can interact during reading.

Sociocultural model

The sociocultural model of reading difficulties can be defined as social phenomena involving communication within social, and cultural contexts including one's community, classroom, and home (Rubin, 1997; Wixson & Lipson, 1990). Sociocultural variables interweave social, cultural, and economic issues that affect one's ability to read (Bond, Tinker & Wasson, 1994; Harris & Sipay, 1990; Heath, 1991; Juel, 1991; Purcell-Gates & Dahl, 1991). Issues affecting reading difficulties in this perspective include low socioeconomic status (SES), family influences, values, communication, and socialization; cultural groups, environment, peers, associates, and language or dialectic minorities (Johns & Espinoza, 1992).

The characteristics of a child experiencing reading difficulties in a sociocultural perspective includes the use of nonstandard spoken English, unfamiliarity with print and media such as books; malnourishment; peers

and outside influences; family influences; gender; SES; patterns of acquiring and displaying knowledge; labeling, i.e., "special student." There may be a lack of congruence between the teacher's and child's style of discourse. Expectations from the child's home, peers, and teachers may influence reading ability; differences in patterns of questioning at home compared with those at school also contribute to characteristics of socioculturally based reading difficulties.

Method

Sample

The sample used in this research consisted of 39 primary school teachers from the northeast section of a great lakes, midwestern state. Twenty-seven teachers were from suburban school settings, nine taught in a rural setting, and three were from urban settings. All teachers were volunteers for the research and had at least four years of teaching experience. Seventeen teachers from the sample had over 15 years teaching experience. The sample was comprised of thirty-seven female and two male primary school teachers. Thirty-two teachers instructed grades 1-3, the remaining seven teachers taught grades 4-6.

Research Design and Procedure

A descriptive research design was employed in this study. A survey

questionnaire was given to the sample of elementary school teachers. The teachers completed the questionnaires at their leisure and returned them to the researcher through the mail or personal delivery. The data were gathered during October, 1996 (see Appendix A).

Measures

There was a list of 32 methods of reading instruction in the survey questionnaire. The teachers indicated their use of each method along the spectrum of often, sometimes, rarely or never. The teachers were also requested to match each instructional reading method to its corresponding model of reading difficulty.

The development of the survey tool involved investigating methods of reading instruction found in reading methods textbooks, research articles, and publications by experts in the fields of reading education and psychology (Vacca & Vacca, 1993; Rubin, 1997). The connection between models of reading difficulties and methods of reading instruction was an idea for future research from Bigenho, (1994). The construction of this research tool, based on the perspectives of professional experts contributed to the content validity of the survey (Borg & Gall, 1989).

In addition, 12 graduate students from a midwestern, liberal arts institution provided feedback on the content of the survey instrument.

This procedure ensured face validity by determining that the survey truthfully represented methods of reading instruction (Borg & Gall, 1989; and Judd, Smith, & Kidder, 1991).

Data Analysis

The data were analyzed in the following: Frequencies from the respondents' surveys were added and averaged, according to the number of respondents. The lower the average score, the more often the method of reading instruction was used by the sample of teachers. After average scores were found, the methods of instruction were ranked according to frequency of use.

In order to determine the model of reading difficulty associated with each method of reading instruction, frequency data were collected. The model that received the highest frequency was the model most associated with the particular method of instruction. Individual models of preference were ascertained from the sample by adding each model response from the 32 item survey list. The model that received the highest total frequency score from the 32 methods of reading instruction was the model preferred by each respondent. The overall model of preference was determined by adding each survey preference to yield the group (sample) preference.

Results

The methods of classroom reading instruction were ranked in order to see which methods were used most often by teachers (see Appendixes B and C). In addition, the teachers matched each reading method to its corresponding model of reading difficulties in order to connect methods of reading instruction to models of reading difficulties (see Appendix D).

The results indicated that questioning, modeling, and background enrichment were the three most common methods of instruction used by teachers. These reading methods were associated with information processing according to the participants. There was a three way tie for fourth place in methods use. Journal writing, summarizing, and vocabulary development were used rather frequently by the teacher participants in their classroom reading instruction. It is interesting to note however, that although summarizing was associated with information processing, journal writing and vocabulary development were seen as socioculturally based instructional methods. Spelling was ranked seventh, followed by context cues, pre-reading activities, e.g., skimming, and reading for detail, in a three way tie for eighth place. These methods were associated with information processing.

Prediction activities, word parts, outlining, and study skills were

ranked 11th and associated with information processing. Sentence construction and the KWL (what you know, want to know, and learned) activity tied for 15th place and were associated with information processing. Classifying questions (literal, inferential, and evaluative), fact or fiction, phonics activities, and word banks tied for 17th place and were characterized as information processing based reading methods. Meanings in literature (figurative, or literal), an information processing based activity, paraphrasing, a sociocultural based activity, and writing groups (information processing) were ranked 21st.

Metacognition, and story grammar were tied for 24th place and associated with information processing. The LEA (language experience approach), associated with both information processing and sociocultural models and paired reading (sociocultural) placed 26th. Semantic mapping placed 28th and was associated with information processing. Choral reading and the cloze activity were ranked 29th (information processing). Paraphrasing and propaganda styles were ranked 31st and 32nd, and associated with sociocultural models of reading difficulties. Overall, 36 teachers' surveys were information processing oriented and the remaining three were socioculturally oriented.

Discussion

According to the data analyses, there was a strong comprehension focus among reading methods employed by teachers. Questioning, modeling (think alouds), background enrichment, and summarizing were activities utilized most often by teachers in their reading instruction. This finding is important because understanding the meaning behind decoded written symbols is the mark of successful reading achievement.

There were anomalies in the results regarding comprehension. For example, semantic mapping (28th), metacognition (24th), and cloze reading passages (29th) received low rankings while questioning, modeling, background enrichment, and summarizing were highly ranked. This may indicate that although teachers utilized generally, well known, broad-based comprehension strategies, they did not frequently use situationally specific strategies involving metacognition, the cloze procedure, and semantic mapping.

It is possible that individual reading instruction may have been the format for actual classroom reading. Indeed, reading groups, choral reading, paired reading, and the LEA received low rankings among the teachers. These findings also raise questions about how much actual reading was done in the classroom?

There was a strong writing component among the participants.

Writing journals (4th), summaries (4th), and spelling (7th) were used often by teachers; however, sentence construction (15th), involving grammar, writing groups (21st), and story grammar (24th), were not highly ranked. These results imply that specific writing activities received lower rankings than more generic and global writing activities.

Phonics instruction was ranked in the lower half of instructional methods used by teachers, which may be more prevalent in kindergarten-two Reading curricula than in Reading curricula from grades three to six. Grammar, in terms of sentence construction was ranked 15th, possibly due in part to an association with grammar skills linked to upper elementary grade level curricula, or perhaps, a diminished focus on grammar in the curricula. It is interesting that although vocabulary development was ranked 4th, the use of word banks, a key means of vocabulary development was ranked 17th. This finding may point toward a need for specific, applicable methods of reading instruction in addition to generic approaches to reading instruction.

According to the results, 22 of the 32 reading methods surveyed were placed within the information processing perspective. This indicates that teachers viewed reading instruction primarily through the lense of information processing. Methods of reading instruction focused on

activities that enhanced students' understanding of text material through reading methods that develop cognitive processes such as encoding storage, activation, and retrieval of information. Comprehension activities were prevalent in the information processing perspective.

Eight reading methods were associated with the sociocultural perspective, the remaining three methods were placed within the information processing and sociocultural perspectives. Perhaps one explanation for the small number of reading methods associated with the sociocultural model was based on its focus beyond the classroom and into areas such as economics, finance, employment, and family structure. These variables clearly extend beyond classroom reading instruction, and yet play an important part in the lives of students, including their education. The absence of the medical model is not surprising because a child's physiological problems are professionally addressed by medical personnel rather than classroom teachers.

It is important to note that it is often the case that methods of reading instruction overlap models of reading difficulties. For example, questioning, the most used and highest ranked reading method was not exclusively placed into the information processing perspective by all the teachers in the sample. Ten teachers placed it within the sociocultural

perspective, and three teachers placed it within the medical perspective (see Appendix D). Indeed, since models of reading difficulties have problems of overlap and definition, perhaps they are a "dead horse" and no longer should be used as a marker in Reading Education (Otto, 1996).

One implication of this study involves how beliefs influence instruction. It is possible that teachers were affected by their prior experiences as pupils (Pajares, 1992). The range of these past experiences includes instructional strategies modeled by their teachers, and social interactions that took place among pupils, peers, and teachers (Slavin, 1991). These earlier experiences could contribute to their perceptions of reading difficulties, and use or selection of reading methods. Perhaps future research could investigate the variables associated with the medical, information processing, and sociocultural models, and then determine a set of matching instructional reading methods. In this manner teachers are provided with a framework for instructing their students.

An alternative explanation of this study is that teachers present a balanced approach toward reading instruction. Comprehension, writing, vocabulary development, phonics and sentence construction are taught during the school year; however, they are taught on a broad-based, generic

level. Specific methods of reading instruction such as the LEA, cloze procedure, metacognitive strategies, and story grammar could be taught in order for teachers to maximize their repertoire of activities and enhance their students' reading abilities. For example, teachers' awareness of vocabulary development is important; however, it is necessary also to have a number of applicable methods to dispense vocabulary knowledge through activities such as word banks in order to reach all the students and thoroughly teach the vocabulary. In this manner, flexible, in depth, situational reading instruction is given by teachers to their students.

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Appendix A

Reading Methods Survey

Directions: Match the reading method to the model of reading difficulty it best fits. Indicate how often you use the method in your teaching.

Model of Reading Difficulty

A) Information Processing
B) Medical
C) Sociocultural

Use of method in classroom

1 Often 2 Sometimes 3 Rarely 4 Never

Model	Rank Use	Model	Rank Use
1_____Semantic mapping	____	17____Questioning	____
2_____Prediction	____	18____Details	____
3_____KWL	____	19____Figurative/Literal	____
(What you know, want to know, and learned)		(Meanings in literature)	
4_____LEA	____	20____Classifying questions	____
(Language Experience Approach)		(Literal, inferential, evaluative)	
5_____ Writing journals	____	21____Fact or fiction	____
6_____Modeling	____	22_____Propaganda styles	____
7_____Summaries	____	23____Outlining	____
8_____Story Grammar	____	24_____Paired Reading	____
9_____Word banks	____	25_____Reading Groups	____
10____Phonics	____	26_____Paraphrasing	____
11____Cloze	____	27_____Vocabulary development	____
12____Choral reading	____	28____Writing groups	____
13____Word parts	____	29____Metacognition	____
(Root words and affixes)			
14____Context cues	____	30____Study Skills	____
15____Background Knowledge	____	31____Sentence construction	____
(Background enrichment)		(Grammar/manipulatives)	
16____Pre-reading, skimming	____	32____Spelling	____

Appendix B

Teachers' Use of Reading Methods Within the Information Processing Perspective

Reading Method	M	Rank
Questioning	1.0	1
Summaries	1.3846	4
Vocabulary Development	1.3846	4
Spelling	1.4615	7
Context Cues	1.5385	8
Pre-Reading	1.5385	8
Details	1.5385	8
Prediction	1.6923	11
Word Parts	1.6923	11
Outlining	1.6923	11
Study Skills	1.6923	11
Sentence Construction	1.923	15
KWL (What you know,want to know, and what you've learned)	1.923	15
Word Banks	2.0	17
Phonics	2.0	17
Classifying Questions	2.0	17
Fact or Fiction	2.0	17
Figurative/Literal	2.0769	21
Writing Groups	2.0769	21
Story Grammar	2.2308	24
Metacognition	2.2308	24
Language Experience Approach	2.3077	26
Semantic Mapping	2.4167	28
Cloze	2.4615	29
Choral Reading	2.4615	29

N=39 Notes: Use rankings were averaged on the following scale: 1 (often); 2 (sometimes); 3 (rarely); and 4 (never). Placement of methods within models of reading difficulties was determined by frequency data (see Appendix D).

Appendix C

Teachers' Use of Reading Methods Within the Sociocultural Perspective

Reading Method	M	Rank
Modeling	1.2308	2
Background Knowledge	1.3333	3
Writing Journals	1.3846	4
Paraphrasing	2.0769	21
Language Experience Approach	2.3077	26
Paired Reading	2.3077	26
Reading Groups	2.6154	31
Propaganda Styles	3.1538	32

N=39 Notes: Use rankings were averaged on the following scale: 1 (often); 2 (sometimes); 3 (rarely); and 4 (never). Placement of methods within models of reading difficulties was determined by frequency data (see Appendix D).

Appendix D

Teachers' Placement of Reading Methods
Within Models of Reading Difficulties (f) N=39

Reading Method	Information Processing	Sociocultural	Medical
Semantic Mapping	39*	0	0
Outlining	39*	0	0
Classifying Questions	39*	0	0
Phonics	36*	2.5	.5
Paraphrasing	34.5*	1.5	3
Details	34*	5	0
Cloze	33*	6	0
Word Parts	33*	6	0
Metacognition	33*	5	1
Summaries	32*	4	3
Prediction	31*	7	3
Context Cues	30*	9	0
Spelling	30*	5	4
Story Grammar	27*	12	0
KWL	26*	13	0
Pre-Reading	26*	8	5
Questioning	26*	10	3
Word Banks	25*	9	7
Fact or Fiction	24*	9	6
Figurative/Literal	21*	17	1
Vocabulary Development	21*	19	2
Choral Reading	17*	12	10
Background Knowledge	0	36*	0
Propaganda Styles	7	31*	1
Paired Reading	2	26*	11
Writing Groups	12	25*	2
Writing Journals	16	23*	0
Reading Groups	12	23*	4
Language Experience Ap.	15	23*	1
Modeling	12	15*	12
Sentence Construction	18*	18*	3
Language Experience Ap.	19*	19*	1
Study Skills	17*	17*	5